Aeronautics Educator Guide			
2009 Science			
Academic Standards			
Minnesota Science			
Grade 2			
Activity/Lesson	**State**	**Standards**	
Air Engines (12-16)	MN	SCI.2.2.1.1.2.1	Raise questions about the natural world and seek answers by making careful observations, noting what happens when you interact with an object, and sharing the answers with others.
Air Engines (12-16)	MN	SCI.2.2.2.2.1.1	Describe an object's change in position relative to other objects or a background.
Air Engines (12-16)	MN	SCI.2.2.2.2.1.2	Demonstrate that objects move in a variety of ways, including a straight line, a curve, a circle, back and forth, and at different speeds.
Air Engines (12-16)	MN	SCI.2.2.2.2.2.1	Describe how push and pull forces can make objects move.
Wind in Your Socks) (29-35)	MN	SCI.2.2.3.2.2.1	Measure, record and describe weather conditions using common tools.
Aeronautics Educator Guide			
Activity/Lesson	**State**	**Standards**	
Air Engines (12-16)	MN	SCI.3.3.1.1.2.3	Maintain a record of observations, procedures and explanations, being careful to distinguish between actual observations and ideas about what was observed.
Rotor Motor (69-75)	MN	SCI.3.3.1.1.2.1	Generate questions that can be answered when scientific knowledge is combined with knowledge gained from one's own observations or investigations.
Making Time Fly (80-86)	MN	SCI.3.3.1.3.2.2	Recognize that the practice of science and/or engineering involves many different kinds of work and engages men and women of all ages and backgrounds.
Where is North? The Compass Can Tell Us (87-90)	MN	SCI.3.3.1.1.2.1	Generate questions that can be answered when scientific knowledge is combined with knowledge gained from one's own observations or investigations.
Dunked Napkin (17-22)	MN	SCI.3.3.1.1.2.2	Recognize that when a science investigation is done the way it was done before, even in a different place, a similar result is expected.
Dunked Napkin (17-22)	MN	SCI.3.3.1.1.2.4	Construct reasonable explanations based on evidence collected from observations or experiments.
Paper Bag Mask (23-28)	MN	SCI.3.3.1.1.1.1	Provide evidence to support claims other than saying “Everyone knows that,” or “I just know,” and question such reasons when given by others.
Paper Bag Mask (23-28)	MN	SCI.3.3.1.1.2.1	Generate questions that can be answered when scientific knowledge is combined with knowledge gained from one's own observations or investigations.

Paper Bag Mask (23-28)	MN	SCI.3.3.1.1.2.4	Construct reasonable explanations based on evidence collected from observations or experiments.
Wind in Your Socks) (29-35)	MN	SCI.3.3.1.1.1.1	Provide evidence to support claims other than saying “Everyone knows that,” or “I just know,” and question such reasons when given by others.
Wind in Your Socks) (29-35)	MN	SCI.3.3.1.1.2.1	Generate questions that can be answered when scientific knowledge is combined with knowledge gained from one's own observations or investigations.
Wind in Your Socks) (29-35)	MN	SCI.3.3.1.1.2.3	Maintain a record of observations, procedures and explanations, being careful to distinguish between actual observations and ideas about what was observed.
Wind in Your Socks) (29-35)	MN	SCI.3.3.1.1.2.4	Construct reasonable explanations based on evidence collected from observations or experiments.
Bag Balloons (40-43)	MN	SCI.3.3.1.1.2.1	Generate questions that can be answered when scientific knowledge is combined with knowledge gained from one's own observations or investigations.
Sled Kite (44-51)	MN	SCI.3.3.1.1.2.1	Generate questions that can be answered when scientific knowledge is combined with knowledge gained from one's own observations or investigations.
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2009 Science			
Academic Standards			
Minnesota Science			
Grade 4			
Activity/Lesson	**State**	**Standards**	
Where is North? The Compass Can Tell Us (87-90)	MN	SCI.4.4.2.3.1.2	Describe how magnets can repel or attract each other and how they attract certain metal objects.
Paper Bag Mask (23-28)	MN	SCI.4.4.2.1.1.1	Measure temperature, volume, weight and length using appropriate tools and units.
Wind in Your Socks) (29-35)	MN	SCI.4.4.2.1.1.1	Measure temperature, volume, weight and length using appropriate tools and units.
Bag Balloons (40-43)	MN	SCI.4.4.2.1.2.2	Describe how the states of matter change as a result of heating and cooling.